

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An intervertebral disk prosthesis or an artificial vertebral body, comprising:-with

A) an essentially hollow-cylindrical basic body (1) with a jacket (2) constructed as a bellows, a top end (3), a bottom end (4) and a central longitudinal axis (5),

B) a top apposition plate (6), provided transversely to the central longitudinal axis (5) on the top end (3) of the basic body (1), said top apposition plate (6) serving that is intended as a support for the base plate of a vertebral body, and

C) a bottom apposition plate (7), provided transversely to the central longitudinal axis (5) on the bottom end (4) of the basic body 1, said bottom apposition plate (7) being adapted for placement on a that can be placed on the cover plate of a vertebral body, and

D) the jacket (2), constructed as a bellows, is constructed as a spring element with a specific spring rate, wherein:-

characterised in that

E) the jacket (2) comprises a plurality of bellows inserted into one another.

2. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial

vertebral body according to claim 1, ~~characterised in that~~ wherein the specific spring rate is at least minimum 50 N/mm, preferably minimum 100 N/mm.

3. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to claim 2, ~~characterised in that~~ wherein the spring rate is at least minimum 150 N/mm, preferably minimum 400 N/mm.

4. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 3,~~ characterised in that claim 1, wherein the spring rate is ~~maximum 800 N/mm, preferably maximum less than 2000~~ N/mm.

5. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 4,~~ characterised in that claim 1, wherein, under a load of 1000 N, ~~a~~ the spring travel of the spring element is between about in the range of 1-2 mm, preferably in the range of 1.3-1.7 mm.

6. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 5,~~ characterised in that claim 1, wherein the spring element is both a tensile spring and a compression spring.

7. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 6,~~ characterised in that claim 1, wherein a ~~the~~ number of folds of the jacket (2), ~~constructed as a bellows,~~ is in the

~~range of~~ is between about 3-10.

8. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to claim 7, ~~characterised in that the~~ wherein the number of folds of the jacket (2), ~~constructed as a bellows, is in the range of~~ is between about 4-5.

9. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 8, characterised in that~~ claim 1, wherein the jacket (2) comprises a plurality of single layers.

10. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 9, characterised in that~~ claim 9, wherein the single layers of the jacket (2) are spaced from one another.

11. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 9, characterised in that~~ claim 9, wherein the single layers of the jacket (2) abut against one another without intermediate layers.

12. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 11, characterised in that~~ claim 1, wherein the jacket has slots that extend ~~basically~~ essentially parallel to the central longitudinal axis (5).

13. (Currently Amended) ~~An~~The intervertebral disk prosthesis or an artificial vertebral body according to ~~any one of claims 1 to 12, characterised in that~~ claim 1, wherein the rotational stiffness of the jacket (2) allows a 1°-3° rotation of the jacket, preferably 1.5°-2.5°.

14. (Currently Amended) ~~An~~The intervertebral disk prosthesis or an artificial vertebral body according to ~~any one of claims 1 to 13, characterised in that~~ claim 1, wherein, when an axial force of 800 N is applied, the ~~an~~ axial stroke of the jacket is in the range of ~~between about~~ 1.0-2.5 mm, preferably in the range of 1.30-1.75 mm.

15. (Currently Amended) ~~An~~The intervertebral disk prosthesis or an artificial vertebral body according to ~~any one of claims 1 to 14, characterised in that both~~ claim 1, wherein the top and bottom apposition plates (6, 7) are firmly axially fastened on the top and bottom ends (3, 4) of the basic body (1), respectively, but so as to enable ~~axially firmly but enabling~~ rotation.

16. (Currently Amended) ~~An~~The intervertebral disk prosthesis or an artificial vertebral body according to ~~any one of claims 1 to 15, characterised in that both~~ claim 1, wherein the top and bottom apposition plates (6, 7) are axially fastened on the top and bottom ends (3, 4) of the basic body (1), respectively, such that ~~and their rotation of the top and bottom apposition plates about the~~ central longitudinal axis (5) is limited, preferably to an angular range of maximum ~~to an angular range of~~ no more than about 5°.

17. (Currently Amended) ~~An~~The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 15, characterised in that both~~ claim 1, wherein the top and bottom apposition plates (6, 7) are firmly axially fastened on the top and bottom ends (3, 4) of the basic body (1), respectively, so as to prevent rotation of the top and bottom apposition plates axially firmly and unable to rotate.

18. (Currently Amended) ~~An~~The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to claim 17, ~~characterised in that the~~ wherein rotational stiffness of the jacket (2) constructed as bellows is so chosen, that ~~both the top and bottom apposition plates (6, 7) can rotate relative one another about the central longitudinal axis (5) by an angle of~~ between about 1°-5°, preferably 2°-3°.

19. (Currently Amended) ~~An~~The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 18, characterised in that both~~ claim 1, wherein the top and bottom apposition plates (6, 7) can be tilted from the a plane that is orthogonal to the central longitudinal axis (5) by an angle of between about 4°-8°, preferably 5°-7°.

20. (Currently Amended) ~~An~~The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 19, characterised in that~~ claim 1, wherein the hollow-cylindrical basic body (1) is filled at least partially with a solid body, acting that acts as a dampening element.

21. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to claim 20, ~~characterised in that~~ wherein the solid body is formed from a synthetic material, ~~preferably an elastomer~~.

22. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 21, characterised in that~~ claim 1, wherein the jacket (2) is made from a metal or a metal alloy, ~~preferably based on titanium~~.

23. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 22, characterised in that~~ claim 1, wherein the material of the jacket (2) is formed from a material having a ~~has a~~ minimum stretch limit of about 30 %, ~~preferably a minimum of 38 %~~.

24. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 21, characterised in that~~ claim 1, wherein the jacket (2) is made from a synthetic material, ~~preferably an elastomer~~.

25. (Currently Amended) ~~An~~ The intervertebral disk prosthesis or ~~an~~ artificial vertebral body according to ~~any one of claims 1 to 24, characterised in that~~ claim 1, wherein the jacket (2) is made from a packet of cup springs.